

Abstract of the Disclosure

ACTUATION VALVE FOR CONTROLLING FUEL INJECTOR AND
COMPRESSION RELEASE VALVE, AND ENGINE USING SAME

The present invention relates to engines having multiple hydraulic devices. For instance a multi-cylinder diesel engine might include both an a fuel injector and an engine compression release brake. Traditionally, each of these hydraulic devices has been controlled by an individual actuator control valve. However, engineers have learned that decreasing the number of engine components can increase engine robustness. In addition, engineers have learned that de-coupling fluid pressure to the needle valve member hydraulic surface from fluid pressure lines to other injector components can result in greater control of the injector. Therefore, the present invention utilizes a single actuator control valve to control both hydraulic devices for an engine cylinder and to provide independent control of fluid pressure to the needle valve member closing hydraulic surface.